SECTION C

STATEMENT OF WORK

C.1 TASK ORDER OBJECTIVES

C.1.1 Task Order Purpose and Overview

This is a Cost Plus Incentive Fee Task Order issued under the U.S. Department of Energy (DOE) Office of Environmental Management's (EM) Multiple Award Indefinite Delivery Indefinite Quantity (ID/IQ) Task Order Contract. This Task Order Statement of Work (SOW) reflects the application of approaches and techniques that emphasize performance based results/outcomes and minimize "how to" performance descriptions. The ID/IQ Task Order Contractor (hereinafter Contractor) has the responsibility for total performance under the Task Order, including determining the specific methods for accomplishing the work.

The purpose of this task order is to obtain all services for deactivation, demolition, and removal of the Separations Process Research Unit (SPRU) nuclear facilities; cleanup and environmental restoration of the underlying and surrounding contaminated soil; and, decontamination of piping tunnel connecting the SPRU facilities to other operating facilities.

C.1.2 Background

The SPRU, located at Knolls Atomic Power Laboratory (KAPL) in Niskayuna, New York, was operated from 1950 to 1953 as a pilot plant to research the REDOX and PUREX chemical processes to extract uranium and plutonium from irradiated uranium. These operations contaminated the SPRU facilities and environmental media, resulting in the need to remediate the SPRU site. The SPRU site nuclear facilities and land areas are owned by the U.S. Department of Energy (DOE). The nuclear facilities are currently maintained by KAPL, Inc. a subsidiary of Lockheed Martin. See Exhibit A SPRU Project Area Locator Photographs, and Exhibit D SPRU Project Applicable Documents. The SPRU facilities and surrounding land areas addressed in this scope of work cover approximately five acres.

C.1.3 Task Order Objectives

Task Order completion will be achieved when the following are accepted by DOE as complete:

1. The SPRU nuclear facilities; Building G2, Building H2 and tank enclosure, and the interconnecting pipe tunnel have been removed;

2. The pipe tunnels in the basements of Building E1 and G1 have been decontaminated;

3. Building G2 shares a common wall with Building G1; the common wall has been repaired and restored as specified in the Task Order;

4. Incidental contaminated soil underlying and surrounding the nuclear facilities from past operations and caused by demolition operations during the Task Order have been removed to levels specified in the Task Order;

5. Wastes have been shipped and disposed offsite;

6. Final Reports for the removal of the facilities and incidental contaminated soils are completed and approved by DOE;

7. The excavation and other disturbed areas are restored to grade with structural fill and properly compacted; and

8. Contractor temporary trailer and storage areas are removed, and the areas are graded for proper drainage, and reseeded or paved as appropriate.

C.1.4 Site Description

The SPRU nuclear facilities are currently maintained by the Knolls Site Management and Operations contractor KAPL, Inc. The SPRU site consists of the main G2 and H2 Buildings (including associated pipe tunnels and integral underground tank enclosures) in the northwest corner of the upper level area. It also includes the land adjacent to these facilities including a SPRU project trailer located to the west of Building G1. This area is known as the "Upper Level." The Upper Level includes three SPRU related RCRA Solid Waste Management Units (SWMUs), and one Knolls Site Area of Concern (AOC):

- H2 Processing Facility (SWMU-030),
- H2 Tank Farm (SWMU-031),
- Pipe Tunnels (SWMU-057), and
- KAPL Hillside Area AOC-001.

DOE, using its authority under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) has pursued removal of the SPRU facilities and removal of incidental contaminated soil in the Upper Level using the non-time critical removal action process. Engineering Evaluation and Cost Analyses (EECAs) have been issued, presented to the public, and DOE has selected the preferred alternatives.

New York State Department of Environmental Conservation's (NYSDEC's) Resource Conversation and Recovery Act (RCRA) regulations and RCRA corrective action process is an appropriate and relevant requirement noted in DOE's documents. DOE has submitted the RCRA Facility Assessment (RCRA RFA) and RCRA Facility Investigation (RFI) for Groundwater to NYSDEC, which includes the Upper Level area discussed in the Task Order. Based upon the information contained in the RCRA RFA and discussions with NYSDEC, the DOE and NYSDEC have agreed in concept that the SPRU project can eliminate the RCRA Facility Investigation and Corrective Measure Study for soil if the presumptive remedy of remedial cleanup is chosen. The RFI for groundwater has been submitted to NYSDEC for concurrence; however, NYSDEC's concurrence with DOE's recommendations is still pending.

C.2 NUCLEAR FACILITY D&D WBS 1.4.8.10.2

This Work Breakdown Structure (WBS) activity includes all activities related to removal of the Building H2, Building H2 Tank Enclosure, Building G2, interconnecting pipe tunnel, and decontamination of the Building E1 and G1 pipe tunnels. The WBS activities are shown in Exhibit G Work Breakdown Structure.

C.2.1 D&D Program Management WBS 1.4.8.10.2.1

MISCELLANEOUS SITE WORK

In performing all Site work, the Contractor shall:

- Protect and isolate building G1 from releases of contaminants during work in Building G2;
- Protect Building G1 from physical damage during work in Building G2;
- Provide KAPL, Inc. Radiological and Safety organizations information they need to demonstrate that KAPL, Inc. personnel working near contractor work areas continue to have a safe working environment;
- Protect environmental sampling wells near work sites during excavation operations, and replace sampling wells if damaged or removed;
- Remove and plug the Health Physics wells aligned along the perimeter of Building H2 in accordance with NYSDEC requirements to ensure they do not become a conduit for contaminated water to flow; note, one of the Health Physics wells is in excess of 125 feet deep;
- Identify all operational utilities prior to excavation activities per standard industry practices and ensure that disruption of KAPL site operations are minimized;
- Deactivate, remove, and reroute utilities as needed to accomplish the objectives of the Task Order; and
- Coordinate utility deactivation, rerouting, reactivation with KAPL, Inc.
- Remove the stack, scrubber, and building foundations located below grade to the south of Building G2 and west of Building G1. The foundations may be radioactively contaminated;

- Remove the abandoned septic system and leach field to the north of building H2;
- Remove the eight foot security fence and concrete anchors to the west of the nuclear facilities to aid in work required by this Task Order as needed. The security fence shall be restored upon task completion;
- Remove inactive abandoned utilities as encountered. These utilities may be contaminated with chemicals, radioactivity, or may be made with or covered with asbestos containing materials. Coordinate removal of inactive utilities with KAPL Inc.;
- Remove the electrical transformer pads and pits, and other foundations located on the east side of building G2, between Building G2 and the security fence. The transformers have been previously removed.

Mobilization WBS 1.4.8.10.2.1.X.4.5.1

No services are provided by KAPL or DOE except as noted in the Government Furnished Services section or in an individual statement of work section.
The Contractor shall:

- Use onsite office facilities for its key personnel. The contractor will have access to one DOE trailer for this purpose;
- A trailer to the west of Building G1 may also be used by the contractor, and there is sufficient space for a second trailer (the area the trailer is in may need to be excavated to remove underground foundations from the former removed stack and scrubber column structure);
- Provide miscellaneous trailers, and temporary material storage facilities otherwise needed during D&D and cleanup activities and shall remove such facilities after they are no longer needed. Any new Contractor-acquired trailers and storage facilities, other than temporary units, shall be Energy Star Efficient and comply with Executive Order 13123;
- Provide furniture, computers, telephones and other equipment for contractor personnel; and
- Install temporary utilities for trailers, facilities, and storage areas. The contractor may use the KAPL site tie in locations as available and agreed to by KAPL, or city services. The contractor will be required to pay city services.

Excavation and Earthwork WBS 1.4.8.10.2.1X.4.5.5

The Upper Level shall be restored to original grade existing at the start of this project with structural fill, compact the fill and repair damaged paved areas per the specifications in Exhibit E Miscellaneous Specifications. In addition fill materials shall meet the following requirements:

- onsite soil reused as structural fill shall be sampled in accordance with MARSSIM and meet the release criteria for radioactivity, and must be sampled in accordance with an approved sampling program and meet NYSDEC TAGM 4046 requirements for chemicals contained in this Task Order;

- structural fill from offsite locations shall not contain radioactivity exceeding background values and must be below NYSDEC TAGM 4046 values for chemicals. The contractor shall be responsible to ensure structural fill meets these requirements.

Contractor Demobilization WBS 1.4.8.10.2.1.X.4.5.36

The Contractor shall plan for the demobilization of staff and restoration of any areas disrupted by the Contractor during performance under this Task Order. The Contractor shall prepare and submit to DOE for approval a demobilization and restoration plan. The plan shall cover excess equipment, office equipment, records, furniture, and identify the records to be transferred to DOE.

Preparation of Plans WBS 1.4.8.10.2.1.X.4.3

The Contractor shall:

- Submit a schedule for submission of all plans and reports required by the Task Order within 30 calendar days of award for review and comment. (DOE will approve this schedule as part of the submittal required in Section H, H.900 Project Control Systems and Reporting Requirements)
- Evaluate the need for a Maintenance Implementation Plan (MIP) per DOE Order 433.1 Maintenance Management Program for DOE Nuclear Facilities and prepare one if required. The determination of need for an MIP will depend on whether safety class or safety structures, systems and components are identified in the safety basis, or if it is otherwise determined that a structure, system or component
should be included in an MIP.
- Prepare a Nuclear Facility Categorization (See DOE Standard 1027) for the facilities covered by this Task Order and submit it to the DCOR for approval;
- Prepare a safety basis evaluation and report for the SPRU D&D effort to comply with 10 CFR 830, DOE O 420, and related DOE orders included in this Task Order. A safety basis does not exist for the SPRU facilities. (The contractor may use DOE Standard 1120 as a safe harbor in preparation of the safety basis. The need for Technical Safety Requirements (TSR's) must be evaluated as part of this process.) Exhibit D SPRU Project Applicable

Documents, Nuclear Facility Historical Site Assessment, contains Technical information regarding the operations at SPRU;

- Prepare an Unreviewed Safety Question program for approval;
- Prepare a decommissioning plan for the nuclear facilities inclusive of the Building H2 and associated tank vaults, the interconnecting H2 - G2 pipe tunnel, Building G2, and the E1 and G1 pipe tunnels. (The decommissioning plan shall encompass the contractor approach in the following:
    - deactivation,
    - decontamination,
    - nuclear safety,
    - equipment removals,
    - demolition,
    - excavation,
    - discussions from the safety basis, Worker Safety and Health Program, and Radiological Protection Program
    - discussion of risks to be mitigated during the removal of the buildings and interconnecting pipe tunnel, and decontamination and removals in the E1 and G1 pipe tunnels);
- Develop a Conduct of Operations Program including an implementing training program to comply with DOE Orders, standards, guides, and handbooks, and submit it to the DCOR for review and comment (see DOE O 5480.19 chg 2, and guides);
- Develop a Surveillance and Maintenance Plan for the nuclear facilities for DCOR review and comment;
- Develop a plan to transition surveillance and maintenance responsibilities of the nuclear facilities from KAPL, Inc. to the contractor. Transfer of responsibility will take place upon satisfactory completion of the operational readiness review;
- Conduct an operational readiness review (ORR) or Readiness Assessment (RA), as appropriate per DOE O 425.1B, before responsibility for the facilities are transferred from KAPL, Inc. to the contractor. The Contractor's ORR or RA shall verify the requirements below are completed:

    - The requirements of the safety basis are documented in work documents.
    - Requirements to maintain defense in depth are in place (if identified in the safety basis)
    - Technical safety requirements (TSRs), Limiting Controls, administrative controls or other safety requirements are identified, approved, and reflected in work packages.
    - Training to comply with the conduct of operations program;
    - Land Transfer Form;
    - Decommissioning Plan;

- Worker Safety and Health Program;
- ISMS system description;
- Radiation Protection Program;
- Environmental Protection Program;
- Emergency Preparedness Plan;
- Project Security Plan;
- DOE LAP Certified Dosimetry Program;
- Dosimetry program status;
- Erosion & Sediment Control Plan;
- Quality Assurance Program;
- Status of security clearances;
- Identification and status of site specific training;
- Documentation of completion of contractor staff training;
- Equipment availability and status;
- Regulatory approvals including permits and work plan approvals;
- Emergency response capability identified and arrangements with the KAPL site are finalized;
- Contractor's work packages to execute field work;
- Emergency training exercise(s) with Knolls Site personnel simulating a contaminated injured worker, and a joint drill with KAPL, Inc for loss of HEPA filtered ventilation;
- The following plans are required but may delayed until later in the project if NYSDEC concurs: RCRA Interim Corrective Measures (ICM) Work Plan; RCRA ICM Quality Assurance Plan; and RCRA Health and Safety Plan.

The contractor shall follow DOE's orders, guidelines, and standards for an ORR and provide DOE with an outline of the review and a list of the team members for review and comment prior to conducting the review. Upon completion of the review, the contractor shall provide a report of the resulting findings and corrective actions to the DCOR for approval. DOE will review and verify the contractor's ORR within thirty business days and issue a Safety Evaluation Report and either approve commencement of operations or identify a listing of additional actions required. Upon DOE approval of commencement of operations, the Contractor shall accept responsibility for the nuclear facilities from KAPL, Inc. using the land transfer forms contained in Exhibit F ES&H Responsibility Transfer Documents.

- Prepare a Final Status Survey and Confirmation Sampling and Analysis Plan (CSAP) consistent with MARSSIM protocols and requirements of this Task Order for DCOR review and comment. The purpose of the final status sampling is to confirm that

radioactivity from past operations and the demolition operations during this Task Order have been removed. The CSAP shall outline the data quality objectives, radiological sampling to be performed at each area and shall include the number and locations of samples to be collected, and the frequency of sampling. It shall also include a confirmation sampling Quality Assurance Plan as an appendix to the CSAP to support the confirmation sampling program. The Contractor shall submit this plan to the DCOR at least 60 days prior to starting the confirmation sampling effort. (Note: This Quality Assurance Plan is a separate and distinct plan from the Quality Assurance Program.).

- Prepare a RCRA ICM Workplan, confirmation sampling program, quality assurance plan, and health and safety plan in accordance with NYSDEC's regulations and requirements for DCOR review and comment. The purpose of the sampling program is to confirm that chemicals from past operations and the demolition operations during this Task Order have been removed. NYSDEC does not regulate radioactivity at the SPRU project site, therefore the sample plan and final reports sent to NYSDEC will not include discussions on radioactivity. DOE will submit these plans to NYSDEC for approval prior to starting the soil removals. The contractor shall submit this plan to the DCOR at least 90 days prior to the planned start of soil removals. (Note: This Quality Assurance Plan is a separate and distinct plan from the Quality Assurance Program.).

- Perform data analysis and validation using the following order of precedence: NYSDEC, EPA, or recognized industry standards. The Government reserves the right to verify data quality evaluations data through a third party.

Demolition Complete Report WBS 1.4.8.10.2.1.X.4.4.19
The contractor shall prepare a final report documenting the major activities during the Task Order, summarize health and safety statistics, and discuss lessons learned. The report should include photographs. An outline for the report should be provided to the DCOR for review and comment.

C.2.2 Building G2 & Pipe Tunnel WBS 1.4.8.10.2.2

In this WBS activity the contractor shall perform all effort necessary to remove Building G2 and the Buildings H2 and G2 interconnecting pipe tunnel. The contractor shall utilize the information provided in Exhibit D SPRU Project Applicable Documents in planning this work. The contractor shall plan and perform logistical support with KAPL Inc. regarding this effort. Many active utilities supporting Buildings G2 and H2 pass through Building G2, or are in the ground adjacent to these facilities. Exhibit H Active and

Inactive Utilities contains a listing of known active and inactive utilities and systems. The contractor should note that restoration of the Building G1 north wall will be required once Building G2 is removed (Building G2 has three exterior walls requiring removal). The contractor shall provide drawings and sketches to the DCOR for review and comment showing the restoration of the north wall. The drawings should show how all penetrations will be closed, and include a covered stairwell to allow egress from the second and first floors.

C.2.3 Building H2 & Tank Enclosures WBS 1.4.8.10.2.3

In this WBS activity the contractor shall perform all effort necessary to remove Building H2, and the tank vaults. (Cleanout of the tank vaults which are part of this building are covered by another WBS). The contractor shall utilize the information provided in Exhibit D in planning work. The contractor shall:

- coordinate all logistical support with KAPL Inc.
- deactivate, re-route, or remove miscellaneous utilities (The removal of this building maybe also require relocation of a site storm water drain pipe passing between Building G2 and H2);
- remove piping and other utilities remaining from the former Cooling Tower to limits of the SPRU work areas;
- **prior to removal of the water reuse system's tanks and piping,** characterize and assess the Water Reuse System's tanks and piping for RCRA constituents. (SPRU project's pending permit has no provision for the management of tanks and assumes that the contractor shall remove residual wastes within frame allowed for generators of hazardous waste i.e. ninety days.); and
- remove and replace the Hillside Drain contaminated water collection and processing system

  The SPRU facilities foundations are located below the water table. As a result of contamination being present in soil from past operations the ground water infiltrating this area becomes radioactively and chemically contaminated and requires processing to remove contaminants prior to discharge. The Hillside Drain collection system collects water infiltrating into the foundation area using footer drains installed around Building H2 and tank enclosure. Quantities have ranged from 75,000 to 125,000 gallons per year in the past. Demolition activities may result in changes in volume. See the Nuclear Facilities Historical Site Assessment Section 8.4 from Exhibit D for more information.

  The contractor shall design, install, operate, and maintain the replacement system to contain and remove contaminated water infiltrating the footer drains and excavations made during the duration of the Task Order. The system shall operate automatically with a minimum amount of manual intervention, and shall continue to function after the buildings and contaminated soil are removed, and the excavations are restored to grade. The contractor shall submit the design of the system to the DCOR for review and comment.

C.2.4 Tunnel Cleanout WBS 1.4.8.10.2.4

Work under this WBS activity includes removal of system connected to Buildings G2 and H2. The tunnel system starts in Building E1 basement and continues through Buildings E1, G1, G2, basement areas and terminates at the south wall of Building H2. The contractor should note in the E1 Tunnel drain trap(s) and piping known as the RML Interceptor is present. The interceptor trap(s) is highly contaminated and has radiological dose rates in excess of one rem per hour on contact with the trap, without lead shielding. Spills from the trap have contaminated the floor area which has shielding placed upon it. This trap and piping is an active part of the water reuse system and requires RCRA evaluation of residuals in the trap prior to removing it from service and to ensure the RCRA considerations of the permit are complied with. (SPRU project's pending permit has no provision for the management of RCRA tanks and assumes that the contractor shall remove residual wastes within the time frame allowed for generators of hazardous waste i.e. ninety days.)

The contractor shall:

- coordinate all logistical support with KAPL Inc.
- deactivate and remove inactive piping and utilities after consultation with KAPL;
- decontaminate all surfaces in the E1 and G1 tunnels

  Decontamination will be considered complete when airborne radioactive contamination is returned to ambient outside air, loose radioactive surface contamination levels are less than 450 pCi beta-gamma and less than 50 pCi alpha (9 pCi if TRU present) on a swipe of 100 cm2 area, fixed contamination is reduced to less than 450 pCi/DP (Direct Probe) beta-gamma and 50 pCi/DP alpha (20 pCi/DP if TRU present) on contact, and general area radiation levels are less than 0.06 mrem/hr.

- evaluate and assess chemical contamination from spills and leaks in the E1 and G1 tunnels (the DCOR is to be provided documentation of the visual inspection and any sampling performed including observations of cracks in concrete and sump pits that would allow contaminants (both radioactive and chemicals) to escape into the environment);
- remove visible residuals and staining; and
- characterize and assess the RML interceptor for RCRA constituents.

C.2.5 Tank Enclosure Cleanout WBS 1.4.8.10.2.5

The contractor shall: remove the tank sludge heels, the tanks, and residual contamination in the tank vaults, and all associated utilities. The seven tanks in the tank enclosure contain approximately 300 cubic feet of residual sludge.

DOE expects that residual waste for the vaults will be managed as transuranic waste. For transuranic waste the contractor shall:

- Work directly with DOE's Waste Isolation Plant and contractor to establish acceptable process knowledge and characterization data prior to solidifying residual waste; and
- Arrange all logistics with DOE's contractor for shipment of transuranic waste.

C.3 LAND AREA CLEANUP

Incidental contaminated soils in the Upper Level from past operations and contamination resulting from demolition operations including, but not limited to, surface and subsurface soil shall be removed by the contractor. The contractor shall use the historical documents provided in Exhibit D – SPRU Project Applicable Documents to aid in the determination of removal of contaminated soil, waste characterization, and perform any additional sampling necessary to complete this Task Order.

The contractor shall accept responsibility for the land area surrounding the buildings from the incumbent Contractor using the land transfer forms contained in Exhibit F ES&H Responsibility Transfer Documents. Upon completion of the Task Order the contractor shall transfer land areas to KAPL or another DOE contractor using the land transfer forms contained in Exhibit F.

C.3.1 Land Area Program Management WBS 1.4.8.10.3.1

The contractor shall use the WBS codes in 1.4.8.10.3.3.5 Upper Level Area and Hillside for the preparation of plans and other tasks involving project management for incidental soil removal.

C.3.2 Groundwater WBS 1.4.8.10.3.2

No ground water cleanup is anticipated. Processing of groundwater infiltrating the footer drains of Building H2, work area excavations, or run-on or run-off from precipitation shall be included in the Nuclear Facility D&D WBS activities.

C.3.3 Upper Level Area & Hillside (Upper Level) WBS 1.4.8.10.3.3.5

The Upper Level is shown in Exhibits B Land Area Photographs, and C Land Area Drawings & Maps. This area is bound to the north by a security fence, the west by the Lower Level Access road, the east by a combination of security fencing and Building F, and the south by a security fence and Building G1

The contractor shall remove incidental soil contamination resulting from past operations and demolition operations during the Task Order. This involves removal of radiologically and chemically contaminated soil surrounding and underlying the SPRU facilities. The Upper Level & Hillside includes the following SPRU SWMUs; SWMU-057 Pipe Tunnels, SWMU-030 H2 Tank Farm, SWMU-031 Building H2, and the KAPL Hillside Area AOC. Chemical contamination is present in the

KAPL Hillside Area AOC. The contractor will need to determine if work in the KAPL Hillside AOC is required as a result of demolition and excavation activities and coordinate the need for any regulatory submittals to work in the Hillside AOC with KAPL Inc. DOE has no knowledge of contaminated soil beneath the floor slabs of Building H2 and tank enclosure; however, the contractor should assume a volume of contaminated soil equal to a six foot depth below the building slab and foundations. The contractor should use their own judgment on the amount of incidental soil that may become contaminated as a result of demolition activities during the Task Order.

Surveillance and Maintenance WBS 1.4.8.10.3.3.5.4.06

The contractor shall be responsible for radiological, environmental, safety and health for all of the land areas covered by this Task Order. This includes land areas that are managed as "Soil Contamination Areas" utilizing DOE STD 1098-99 Radiological Controls. KAPL and DOE are not responsible for providing services except as noted in the Government Furnished Services section.

Sampling and Analysis WBS 1.4.8.10.3.3.5.4.08

For all required final status surveys and sampling for radioactivity and final RCRA cleanup reports the contractor shall:

- Use laboratories that have the required State and Federal certifications.
- Ensure that the laboratories used for chemical and radiological analyses are qualified for the state in which waste disposal occurs.
- Ensure that the laboratories have an acceptable quality assurance (QA) and quality control (QC) program to meet the established data quality objectives of the CSAP.
- Ensure laboratories selected to perform analytical services are: (1) Certified by New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) and (2) capable of providing NYSDEC Analytical Services Protocol (ASP) data packages.

C.4 Waste Management

The Contractor shall:

- Be responsible for all waste management activities, including proper characterization of waste relative to physical, chemical and radiological characteristics; identification of and coordination with disposal sites to ensure waste disposal in accordance with applicable requirements; and payment of waste transportation and disposal site fees. (If transuranic waste is generated, DOE will pay for the transportation and disposal fees involving DOE's Waste Isolation Pilot Plant (WIPP). The contractor is responsible for all other aspects transuranic waste management including

reimbursement of WIPP's contractor for transuranic waste characterization and waste certification assistance services.)

- Allocate waste management costs to the correct WBS activity, i.e. Building H2, G2, Tank Enclosure Cleanout, Upper Level and Hillside Area respectively.
- Institute signature security services to ensure waste shipped under this Task Order is received and disposed of at the proper disposal facility.
- Obtain approval of all placarded shipments of waste, and certain other shipments in accordance with DOE's automated shipment approval system.
- Ensure all vehicles are road worthy, drivers properly trained, and that only U.S. citizens are brought on site at SPRU regardless of whether the waste shipment is placarded (See DOE memorandums September 11, 2006 and November 29, 2006).
- Use the USEPA Hazardous Waste Generator Identification Number for the SPRU Project identifying DOE as the owner of the waste for any document where such a number is required. Where the signature of the generator or shipper is required certifying that the waste has been properly characterized or packaged, the contractor is to ensure a properly trained, experienced, and appointed person signs on behalf of the DOE. A copy of the contractor appointing letter and qualifications of the individual shall be provided to the DCOR.
- Implement a waste minimization and pollution prevention program consistent with the applicable Executive Orders and DOE Directives. The program shall be documented in the Waste Management Plan.

The Contractor may use existing contractual instruments between the Federal Government and waste disposal facilities (if permitted by the terms and conditions) when disposing of waste unless the Contractor can obtain more favorable cost arrangements. Any such new subcontract shall be subject to review and approval by the DCO and/or DCOR and shall not compromise the integrity of existing federal or state environmental and health regulatory requirements.

The Contractor shall prepare a Waste Management Plan complying with DOE Order 435.1 Radioactive Waste Management and implementing manuals and guides. Prepare additional documentation as required including:

- Exemption request(s) to use non-DOE disposal facilities. The DOE Radioactive Waste manual (DOE M 435.1-1) contains a preference for use of DOE radioactive waste management facilities; however, when DOE has no capacity for the type or of waste, or it is economically viable to pursue commercial disposal options an exemption request shall be prepared. There are no disposal facilities at the Knolls Site.

- Prepare a Waste Incidental to Reprocessing (WIR) Determination if required. A WIR may be required for residual was in SPRU tanks.

- Prepare a Waste Determination Plan which discusses sampling, analysis methods and quality assurance.

C.5 Regulatory Activities

The contractor shall:

- Comply with site-wide KAPL environmental permits.
- Obtain all necessary licenses and permits required to implement remediation and cleanup activities, including regulatory notifications and National Environmental Policy Act (NEPA) compliance required for project activities (e.g., NEPA Categorical Exclusions, National Emissions Standards for Hazardous Air Pollutants (NESHAP) notifications/evaluations).
- Sign as "operator" on all necessary permits (e.g. RCRA permit) and DOE will sign as "owner".
- Make all regulatory contacts through the DOE SPRU Field Office.
- Prepare all submittals to regulatory officials and submit to the DCOR for review and regulator approval. The DOE will forward the submittal to the appropriate regulator.
- Provide technical expertise to DOE for regulatory interaction which includes, but is not limited to, presentation materials, participation in meetings and providing documentation of all regulatory interactions.
- Provide to the DCOR copies of all correspondence with the regulatory agencies including but not limited to inquiries and contractor's responses to those inquiries, copies of Notices of Violations, copies of audit findings, and other related correspondence when such communication is initiated from the regulator and sent directly to the Contractor.

C.6 Public Affairs Activities

The Contractor shall:

- Support DOE in the coordination of any SPRU-related community relations activities.
- Review the Public Involvement Plan and support any of the activities required for the continued communication with state and local government officials, new media, local citizens groups, and KAPL. The contractor may be required to coordinate with the media, local government officials, and other stakeholders for the start of D&D.

C.7 MEETINGS

The contractor shall:

- Schedule bi-weekly meetings to discuss progress with the DCOR prior to mobilization on site.
- Once mobilized on site, meet with the DCOR once per week to inform the DCOR of planned work activities and potential issues that may impact progress to schedule milestones, and interface activities needed with the KAPL personnel, or regulators, and efforts to manage risks.
- Meet with KAPL key individuals at least twice prior to mobilization to discuss planned work and identify any interface issues that may arise during the course of work activities.
- Attend KAPL meetings on subject matters that interface with the SPRU Project (e.g., storm water pollution prevention monthly meetings, security, permitting, etc.)

C.8 CLEANUP CRITERIA

The Contractor shall be responsible for the removal of radioactivity and chemicals in the Upper Level as part of the Task Order. The contractor shall not blend soil to achieve the cleanup criteria for this Task Order.

The contractor shall hold open the excavation area until:

- A draft RCRA Interim Corrective Measures (ICM) Report in accordance with NYSDEC requirements has been provided by the Contractor and accepted by the Designated Contracting Officer (DCOR) and
- A draft Radiological Cleanup Completion Report in accordance with Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) requirements has been provided by the Contractor and accepted by DCOR.
- DCOR has made a decision on whether additional soil removal is required.

The decision to accept the draft reports, or require additional sampling or soil removal, will be made by DOE within 90 days of receipt of the aforementioned reports. The contractor shall provide access to DOE, its contractors, NYSDEC, and other persons authorized by the DCOR to the work areas for the purpose of performing verification surveys and sampling and other Task Order oversight as described in Section H. Upon DCOR acceptance of the Contractor reports, the contractor shall restore the area to original grade and provide grading to prevent pooling of water and to minimize erosion. Structural fill, backfill, compaction, reseeding, and paving specifications are provided in Exhibit E Miscellaneous Specifications. The contractor shall practice due diligence sampling of structural fill, back fill, and topsoil suppliers to ensure fill materials are not contaminated with chemicals or radioactivity.

The soil cleanup criteria are as follows:

Chemical Cleanup Criteria

The cleanup criteria for chemicals in soil are contained in New York State Requirements Determination of Soil Cleanup Objectives and Cleanup Levels (Technical and Administrative Guidance Memorandum (TAGM) - 4046).

After the DCOR accepts the draft RCRA ICM Report, the Contractor shall prepare the report for publication and submit the report to the DCOR. DOE will submit the report to NYSDEC for approval. The Contractor shall provide continuing technical support, during the period of this Task Order, in order to obtain NYSDEC's approval and issuance of a "No Further Action" determination. Technical support includes, but is not limited to the following:

- Meetings with NYSDEC
- Response to questions from NYSDEC

In the event that additional sampling or soil removal is deemed necessary after the DCOR accepts the RCRA ICM Report, and prior to the completion of this Task Order, the Designated Contracting Officer (DCO) will provide instruction.

Radiological Cleanup Criteria

The cleanup criteria for radioactivity in soil at SPRU are set forth in the following table:

Industrial Land Use Derived Concentration Guidelines (DCGL) Values for Cleanup at SPRU

	Industrial Land Use DCGL (pCi/g)
Radionuclide	**Upper Level**
Americium-241	595
Cesium-137	30
Cobalt-60	10.3
Europium-152	22.8
Europium-154	21.1
Europium-155	892
H-3 (Tritium)	3.38E+06
Nickel-63	5.12E+06
Plutonium-238	818
Plutonium-239	737
Plutonium-240	738
Plutonium-241	20,060
Promethium-147	1.63E+06
Samarium-151	6.73E+06
Strontium-90	4,826
Technetium-99	1.17E+06
Thorium-232	9.50
Uranium-234	767
Uranium-235	196
Uranium-238	896
Zirconium-93	1.37E+06

Upon completion of cleanup, the contractor will perform a confirmation radiation surveys, and sampling using MARSSIM guidelines for the following radionuclides and using minimum detectable activities below:

Radionuclide	Minimum Detectable Activity pCi/g
Cs-137	2
Sr-90	1
Co-60	1
Pu (each isotope)	2.5
U-234	5
U-235	2.5
U-238	5
Am-241	1
Th-232	1

The contractor shall not use the hot spot criteria to determine acceptability of residual contamination.

The Contractor's draft Radiological Cleanup Report includes but is not limited to the summary description of the cleanup effort, summary evaluations, laboratory data, data quality evaluations, and statistical analyses to the DCOR. Once the DCOR accepts the draft report, the Contractor will publish a report and submit it to the DCOR. DOE will submit the report to Office of Naval Reactors (Naval Reactors) for approval. The Contractor shall provide continuing technical support, during the period of this Task Order, in order to obtain acceptance by Naval Reactors. Technical support includes, but is not limited to the following:

- Meetings with Naval Reactors
- Response to questions from Naval Reactors

In the event that additional sampling or soil removal is deemed necessary after the DCOR accepts the Radiological Cleanup Report, and prior to the completion of this Task Order, the Designated Contracting Officer (DCO) will provide instruction.

STATEMENT OF WORK (SOW)
LIST OF EXHIBITS

EXHIBIT A- SPRU PROJECT AREA LOCATOR PHOTOGRAPHS

EXHIBIT B- NUCLEAR FACILITY PHOTOGRAPHS

EXHIBIT C- SPRU AREAS MAP

EXHIBIT D- SPRU PROJECT APPLICABLE DOCUMENTS

Nuclear Facility Related Documents
Nuclear Facility Historical Site Assessment
Facilities Alternatives Fact Sheet
Nuclear Facility EECA May 2006

Upper Level & Hillside and Ground Water Related Documents
Land Area Historical Site Assessment
Land Areas Engineering Evaluation and Cost Analysis (EECA)
Land Areas EECA Fact Sheet
Radiological Characterization Report
RCRA Facility Assessment Sampling Visit
RCRA Facility Investigation Report for Ground Water
Schenectady Naval Reactors Letter to NYSDEC RCRA RCRA Facility Assessment Sampling Visit Report dated August 26, 2005
DOE National Nuclear Security Agency Letter to NYSDEC dated March 9, 2005
NYSDEC Letter dated February 1, 2006 KAPL, Knolls Site - SPRU RCRA Facility Assessment Sampling Visit Report Response to NYSDEC Comment #1, August 26, 2006
NYSDEC Letter dated February 1, 2006 Response to NYSDEC, SPRU RCRA Facility Assessment Sampling Visit Report SWMU's/AOC, February 2002, March 9, 2005
RCRA Facility Investigation for the Knolls Site Hillside Area (AOC-1)

Pending Reports and Letters:

Action Memorandum for Preferred Alternative
NYSDEC Concurrence - RCRA RFI for Groundwater

EXHIBIT E-	MISCELLANEOUS SPECIFICATIONS
EXHIBIT F-	ES&H RESPONSIBILITY TRANSFER DOCUMENTS
EXHIBIT G-	SPRU PROJECT WBS
EXHIBIT H-	ACTIVE AND INACTIVE UTILITIES